

5 We claim:

1. A cleaning-in-place composition comprising, in stoichiometric amounts, a halogen dioxide wherein the halogen dioxide is derived from a precursor alkali metal halite or alkaline earth metal halite, or both.

2. A composition according to claim 1 wherein the composition does not comprise a detergent.

3. A composition according to claim 1 wherein the halogen dioxide is fluorine dioxide, chlorine dioxide or a mixture thereof.

4. A composition according to claim 1 further comprising a hydroxide wherein the hydroxide is sodium hydroxide.

5. A composition according to claim 1 wherein the composition has a pH from about 6.0 to about 8.0.

6. A composition according to claim 1 wherein the composition has a pH from about 7.0 to about 14.0.

7. A composition according to claim 1 wherein the composition has a pH from about 1.0 to about 6.9.

8. A composition according to claim 1 wherein the precursor is an alkali metal halite, the alkali metal halite being sodium chlorite.

- 5 9. A method for cleaning and disinfecting processing equipment, the method comprising the steps of:

- (a) delivering a cleaning-in-place composition to the processing equipment; and
(b) removing the composition from the processing equipment,

wherein the composition comprises:

a halogen dioxide, the halogen dioxide being derived from a precursor alkali metal halite or alkaline earth metal halite, or both.

15

10. A method for cleaning and disinfecting processing equipment according to claim 9 wherein the processing equipment is selected from the group consisting of brewery processing equipment, dairy plant processing equipment and carbonated beverage plant processing equipment.

20

11. A method for cleaning and disinfecting processing equipment according to claim 9 wherein the halogen dioxide is fluorine dioxide, chlorine dioxide or a mixture thereof.

25

12. A method for cleaning and disinfecting processing equipment according to claim 9 wherein the halogen dioxide is chlorine dioxide.

30

13. A method for cleaning and disinfecting processing equipment according to claim 9 wherein the composition further comprises a hydroxide wherein the hydroxide is sodium hydroxide.

5 14. A method for cleaning and disinfecting processing equipment according to claim
9 wherein the composition does not comprise a detergent.

10 15. A method for cleaning and disinfecting processing equipment according to claim
9 wherein the composition has a pH from about 6.0 to about 8.0, or from about 7.0 to
about 14.0, or from about 1.0 to about 6.9.

15 16. A method for cleaning and disinfecting processing equipment according to claim
9 further comprising the step of delivering a second cleaning-in-place composition, the
second cleaning-in-place composition having a pH which is different from the pH of
the cleaning-in-place composition.

20 17. A method for cleaning and disinfecting processing equipment according to claim
9 wherein the precursor is an alkali metal halite, the alkali metal halite being sodium
chlorite.

18. A method for cleaning and disinfecting processing equipment according to claim
9 wherein the composition is delivered by pumping or spraying the composition to the
processing equipment.

25 19. A method for cleaning and disinfecting processing equipment according to claim
18 wherein the composition is pumped into an internal portion of the processing
equipment.

30 20. A method for cleaning and disinfecting processing equipment according to claim
18 wherein the composition is sprayed on to an external portion of the processing
equipment.

5

~~21~~ ⁶ A method for cleaning and disinfecting processing equipment according to claim ~~9~~ wherein the composition is:

10

- (a) generated directly before delivery to the processing equipment, or
- (b) generated, then stored, then delivered to the processing equipment, or
- (c) both.

22. Processing equipment comprising, internally, or externally, or both, the cleaning-in-place composition of claim 1.

add
a1